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(54) Title: **METHOD FOR DETERMINING POSITIONS OF TARGETS BY BISTATIC MEASUREMENTS USING SIGNALS SCATTERED BY THE TARGETS**

(57) **Abstract:** The present invention relates to a method for determining the positions of targets by bistatic measurements using signals scattered by the targets. Also the velocities of the targets can be determined. The range of the transmitters is selected so that a target at an arbitrary point can be measured by scattering in the target by at least four cooperating measuring facilities. First the targets are associated. This occurs by calculating, in two independent ways, two sets of sums of distances between transmission points and targets and, respectively, targets and reception points. Subsequently, said two sums are sorted with respect to distance, compared with each other, and the sums that correspond with each other, while considering a margin of error that has been determined in advance, are stated to correspond to conceivable targets. The association of targets is improved and completed by corresponding calculations being carried out for Doppler velocities. Finally, the positions of the targets are calculated from a system of equations for the bistatically measured distances.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G01S 13/00, G01S 13/87

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL,WPI,PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4499468 A (D.MONTANA ET AL), 12 February 1985 (12.02.85), column 4, line 15 - column 6, line 15, figures 2,7,8 --- -----	1-10

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4499468 A	12/02/85	NONE	